

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of detecting transitions in video comprising:
creating a video database that includes random samples of transition effects;
acquiring a video stream;
~~detecting transition points in the video stream;~~
~~automatically generating segment annotations in the video stream at the detected~~
~~transition points;~~
based on the random samples of transition effects in the video database ~~segment~~
~~annotations~~, dividing the video stream into a plurality of sub-sections;
determining a probability of whether ~~one or more synthesized~~ the random samples of
transition effects are present at one of the plurality of sub-sections of the video
stream, wherein the random samples of ~~one or more~~ transition effects are of a
specified number and a specified type; and
embedding the probability into the sub-section of the video stream.
2. (Previously Presented) The method of claim 1, wherein the determining the probability is performed by a classifier.
3. (Previously Presented) The method of claim 2, wherein the classifier is provided a fixed-sized portion of the sub-section.
4. (Previously Presented) The method of claim 1, further comprising outputting a location of the one or more transition effects and a duration of the one or more transition effects in the video stream.

5. (Cancelled)

6. (Previously Presented) The method of claim 1, wherein the transition effects comprise one or more of: a dissolve, a fade, a wipe, a iris, a funnel, a mosaic, a roll, a door, a push, a peel, a rotate, and a special effect.

7-25. (Cancelled)

26. (Currently Amended) A machine-readable medium having sets of instructions which, when executed by a machine, causes the machine to:

create a video database that includes random samples of transition effects;

acquire a video stream;

detect transition points in the video stream;

automatically generate segment annotations in the video stream at the detected transition points;

based on the random samples of transition effects in the video database segment annotations, divide the video stream into a plurality of sub-sections;

determine a probability of whether one or more synthesized the random samples of transition effects are present at one of the plurality of sub-sections of the video stream, wherein the random samples of one or more transition effects are of a specified number and a specified type; and

embed the probability into the sub-section of the video stream

~~acquire one or more video streams and a probability distribution, the video stream including a shot description; detecting transition points in the first and second shots; based on the transition points, automatically determine a duration of a transition sequence according to the probability distribution, the transition sequence including one or more synthesized transition effects of a specified number and a specified type; select, at random, a first shot and a second shot from the one or more video streams, each shot being transition free; generate the transition sequence of the duration, the transition sequence including one or more transition effects; and training a classifier to detect the one or more transition effects within the generated transition sequence.~~

27. (Previously Presented) The machine-readable medium of claim 26 wherein the one or more transition effects include a portion of the first shot and a portion of the second shot.

28. (Previously Presented) The machine-readable medium of claim 26 wherein the video transition sequence includes a portion of the first shot before the transition effect, the the one or more transition effects, and a portion of the second shot after the one or more transition effects.

29. (Previously Presented) The machine-readable medium of claim 26 wherein the one or more transition effects comprise one or more of: a dissolve, a fade, a wipe, a iris, a funnel, a mosaic, a roll, a door, a push, a peel, a rotate, and a special effect.

30-31. (Cancelled)

32. (Currently Amended) A system comprising:

a transition synthesizer module to

create a video database that includes random samples of transition effects,

~~detect transition points in a video sequence,~~

~~automatically generate segment annotations in the video stream at the detected transition points,~~

based on the random samples of transition effects in the video database~~segment annotations,~~ divide the video stream into a plurality of sub-sections,

determine a probability of whether ~~one or more synthesized~~ the random samples of transition effects are present at one of the plurality of sub-sections of the video stream, wherein the random samples of ~~one or more~~ transition effects are of a specified number and a specified type, and

embed the probability into the sub-section of the video stream; and

a classifier module, the classifier module to be trained to identify the transition effect based on the video sequence.

33. (Original) The system of claim 32, wherein the transition synthesizer module to generate the video sequence using random video shots from a plurality of video streams, the video shots being transition free.

34. (Previously Presented) The system of claim 32, wherein each synthesized transition effect is associated with the duration based on the probability distribution.

35. (Previously Presented) The system of claim 32, wherein the training of the classifier module comprises re-scaling a time series of frame-based feature values associated with the video sequence.